# TAXONOMIC CHANGES AND DESCRIPTIONS OF NEW TINGIDAE (HEMIPTERA) Carl J. Drake and Florence A. Ruhoff

Smithsonian Institution<sup>1</sup>

This paper describes a new genus and three new species of Tingidae. The taxonomic changes include the suppression of several trivial names of species as synonyms and the creation of either new names or resurrection of available names for homonyms that have been theretofore overlooked. The location of the holotype is recorded beneath the descriptions of each new species. We are indebted to Elinor Stromberg and Lisa Biganzoli, both of Washington, D.C., for the fine illustrations. This study was supported in part by National Science Foundation Grant 18721.

# New Synonyms

Diplocysta nubila Drake is suppressed as a synonym of Penottus monticollis (Walker); Stephanitis oschanini Vasilev as synonym of S. pyri (Fabricius): Teleonemia lanceolata (Walker) as synonym of T. tricolor (Mayr); Tingis bengalana Drake as synonym of Dasytingis rudis Drake and Poor; Tingis himalayae Drake as synonym of T. buddleiae Drake; Urentius abutilinus Priesner and Alfieri as synonym of U. eunonymus Distant; and U. sentis Distant as synonym U. hystricellus (Richter).

## Naitingis, NEW GENUS

Obovate or oblong, dorsal and ventral surfaces moderately clothed with very short golden pubescence. Head very short, armed with the usual dorsal spines; bucculae wide, areolate, closed in front; eyes moderately large; antenniferous tubercles short, thick, bluntly rounded in front, concave within. Antennae long, slender, segment I and II short, III very long, and IV moderately long, only slightly swollen. Rostrum long, reaching to end of sulcus; sternal laminae of rostral sulcus low, areolate, widely separated from each other, open at base. Ostiolar sulcus of metathoracic scent glands present on each metapleuron.

Pronotum moderately convex, punctate, tricarinate; collar distinct, areolate, truncate in front, without hood; paranota narrow, erect, composed of one row of small cells; outer margins of paranota and elytra without hairs or bristles. Elytra slightly wider and longer than abdomen, divided into the usual division; costal area narrow, composed of

<sup>1</sup>United States National Museum (USNM).

#### 134 Bulletin So. Calif. Academy Sciences / Vol. 61, Pt. 3, 1962

one row of areolae, sometimes biseriate in hollow of costal area; discoidal area extending beyond middle of elytron, on same level as the sutural area; sutural areas overlapping each other so that their apices lie jointly rounded in resting position. Metathoracic wings longer than abdomen. Legs moderately long, femora slightly swollen.

# TYPE SPECIES, *Tropidocheila maynei* Schouteden, Africa

This new genus is founded for the reception of *Tropidocheila maynei* and var. *biseriata* Schouteden, *T. nyanzae* Schouteden and *Tingis blukwana* Drake. *Biseriata* represents a variety with a partial second row of areolae in hollow of costal area.

*Naitingis*, n. gen., may be separated from *Tingis* and its subgenera by the lack of pronotal hood, very narrow paranota, and dorsal clothing of very short golden hairs. The exterior margins of the paranota and elytra are without hairs or bristles.

#### Engynoma isolata, NEW NAME

- *Tingis insularis* Hacker 1929, Mem. Queensland Mus., vol. 9, p. 330, pl. 34, fig. 10.
- Engynoma insularis: Drake 1942, Jour. Washington Acad. Sci., vol. 32, p. 362.

Since the trivial names of *Tingis insularis* (Horváth) (1902) and *Tingis insularis* Hacker (1929) are homonyms, we are here proposing the specific name of *isolata* for the species described by Hacker.

#### *Tingis strictula* (Puton)

- Monanthia platychila strictula Puton 1878, Ann. Soc. Ent. France. ser. 5, vol. 8, p. lxvi.
- *Tingis strictula:* Horváth 1906, Ann. Mus. Nat. Hungarici, vol. 4. p. 77.

*Tingis montana* Lindberg 1932. Soc. Sci. Fennica Comm. Biol., vol. 3. p. 42. (New Synonymy)

A comparison of a paratype of *T. montana* Lindberg from Spain with a specimen of *T. strictula* (Puton) (det. Puton) from Oran, Algeria, shows that these two trivial names were given to the same species, the latter having priority by many years. The illustration by Lindberg (*loc. cit.* p. 42, pl. 2, fig. 5) is *Tingis cardui* (Linnaeus) and not *T. montana* as labeled.

#### Tingidae taxonomy

# Tingis stachydis (Fieber)

Monanthia maculata Herrich-Schaeffer 1838, Wanzen. Insekt., vol. 4, pp. 51, 56, pl. 123, fig. 389, a-c.

Monanthia stachydis Fieber 1844, Ent. Mon., p. 73, pl. 6, figs. 13-15. *Tingis maculata:* Horváth 1906, Ann. Mus. Nat. Hungarici, vol. 4, pp. 69, 84.

The transference of *Monanthia maculata* Herrich-Schaeffer to the genus *Tingis* by Horváth (1906) made the specific names of this species and that of *Tingis maculata* Herrich-Schaeffer homonyms. As the first revisors, we are here resurrecting *Monanthia stachydis* Fieber as the available trivial name for the former species, and are citing the references needed to verify the homonym and validity of *stachydis* as the valid trivial name.

#### Galeatus maculatus (Herrich-Schaeffer)

*Tingis maculata* Herrich-Schaeffer 1838, Wanzen. Insekt., vol. 4, p. 68, pl. 126, fig. 393.

*Tingis subglobosa* Herrich-Schaeffer 1838, Wanzen. Insekt., vol. 4, p. 68.—Fieber 1844, Ent. Mon., p. 106, pl. 9, figs. 17-20.

Galeatus maculatus: Stål 1874, Ofv. Vet. Förh., p. 48.

As explained beneath the above caption, *Tingis maculata* Herrich-Schaeffer and *Monanthia maculata* Herrich-Schaeffer (now in *Tingis*) are homonyms. Stål (1874) correctly transferred *T. maculata* to the genus *Galeatus*.

## Galeatus spinifrons (Fallén)

*Tingis spinifrons* Fallén 1807, Monographia cimicum Sveciae, p. 38. *Galeatus spinifrons:* Horváth 1906, Ann. Mus. Nat. Hungarici, vol. 4, p. 53.

Copium artemisifolium Shinji 1938, Zool. Mag. Japan, vol. 50, p. 316. — Takeya 1951, Kurume Univ. Jour. (Nat. Sci.), vol. 4, p. 19. (New Synonymy)

The type of *C. artemisifolium* Shinji from Honshû Island (Morioka Island, Prov. Rikuchu), Japan, is apparently lost. Since the original description of *artemisifolium* fits that of *Galeatus spinifrons* and since it breeds on the leaves of *Artemisia vulgaris*, we are here treating the two trivial names as synonyms, *spinifrons* having the priority by many years. In a paper in press elsewhere, the authors have placed other species in synonymy with *spinifrons*.

## Leptodictya elitha, NEW SPECIES

Large, very broad. Head blackish fuscous with dorsal spines testaceous; bucculae dark fuscous. Pronotum blackish fuscous with hood, collar. paranota, carinae, and apex of hind projection testaceous. Elytra pale testaceous with exterior veins, six obliquely transverse bands (each band consists of one depressed vein and adjoining rows of cells) in costal area blackish fuscous; subcostal area with veinlets brown; discoidal area with boundary veins and two adventitious veins brown to fuscous; sutural area with veinlets blackish fuscous. Antenna fuscousbrown with first two segments blackish. Legs light brown with tarsi blackish. Body beneath black, with entire abdomen or only genital segments reddish brown. Length 4.70 mm., width (elytra) 2.70 mm.

Head very short, armed with five, very long, sharp spines; eyes moderately large, dark fuscous; bucculae long, wide, five areolae deep in widest part, closed in front. Antennae long, slender, clothed with whitish pubescense, measurements: segment I, 0.25 mm.; II, 0.12 mm.; III, 3.50 mm.; IV, 0.75 mm. Labium testaceous, extending to base of sulcus; laminae of sulcus very wide, mostly biseriate, with large V-shaped opening at base, without laminae on prosternum.

Pronotum moderately convex, coarsely punctate, tricarinate; median carina composed of one complete row of moderately large areolae, plus two extra cells just behind the hood; lateral carinae less raised than median carina, uniseriate, slightly constricted behind middle of pronotal disc; hood moderately large, strongly compressed laterally, about twice as long as high, feebly produced in front, extending backwards between calli on fore part of pronotal disc; paranotum fairly wide, outer part reflexed so as to leave two rows of areolae on underside and then between two and three rows on upper side, only the outer row of latter resting on the dorsal surface of pronotum; posterior process triangular, areolate. Ostiole and ostiolar canal prominent on each metapleuron, the side of the channel raised, vertical and slightly tilted posteriorly.

Elytra sharply widened at base, much wider and longer than abdomen, sutural areas only partly overlapping so that their apices, in resting position, are separated from each other; costal area very wide with areolae irregular in size, arrangement, and not in regular rows, ten to eleven cells deep in widest part; subcostal area very narrow, vertical, composed of two rows of small areolae, discoidal area extending beyond middle of elytron, acutely angulate at base and apex, seven areolae deep in middle; sutural area large, with areolae as variable in size and as confused in arrangement as in costal area. Hind pair of wings slightly longer than abdomen.

*Holotype* (male) and *allotype* (female), macropterous, Queros, Rio Cosñipata, Department Cuszo, Peru, l.iv. 1952, F. Woytkowski, in Drake Coll. (USNM).

The markings of the elytra are prominent and very similar in appearance to those in *L. approximata*. It differs from the latter species by its larger size, slightly more elevated pronotal carinae, longer cephalic spines, and especially by the longer and distinctly laterally compressed hood. These two species have the sternal laminae of the rostral sulcus biseriate.

#### Amblystira angella, NEW SPECIES

## FIGURE 1

Small, oblong, deep black, shiny, with hollow part of costal area brownish testaceous; eyes moderately large, black; body beneath black, shiny, sparsely clothed with pale pubescence; laminae of rostral sulcus black, dull. Labium brownish with apex black. Antenna pale brown with fourth segment black and shiny, the pubescent hairs sparse on third segment, much more numerous and longer on fourth segment. Legs pale brown with tarsi black, pubescence sparse and pale. Length 2.60 mm., width (elytra) 1.07 mm.

Head very short, with an irregular, median, longitudinal furrow on vertex, armed with three, short, blunt anterior tubercles and two longer, closely appressed, ridgelike occipital spines; buccal laminae wide, areolate, black, closed in front. Labium extending to middle of mesosternum; laminae of sulcus low, widely separated from each other, composed of one row of tiny cells, present on all three sternal divisions, closed at base. Antenniferous tubercles very short, thick, blunt, concave within. Antenna moderately long, slender, measurements: segment I, 0.10 mm.; II, 0.09 mm.; III, 0.70 mm.; IV, 0.38 mm.

Pronotum moderately convex, coarsely punctate, tricarinate, each carina composed of a single row of very small areolae, lateral carinae less raised than median and slightly divergent anteriorly; collar raised, composed of three transverse rows of tiny punctures; calli small, impressed, impunctate; paranotum narrow, slightly reflexed, slightly wider at humeral angle, with two to three rows of tiny punctures. distinctly obtusely angulate opposite humeral angle. Metathoracic

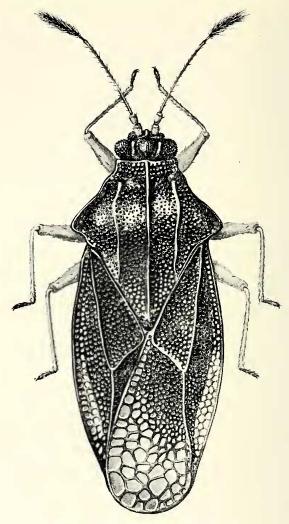


Figure 1. Amblystira angella. n. sp.

scent glands with a prominent, nearly vertical sulcus on each metapleuron.

Elytra with outer margins (also those of paranota) minutely serrate, longer than abdomen; costal area narrow, composed of one row of small rounded cells on basal half, thence posteriorly in hollowed part wider with large areolae and bi- to triseriate; subcostal area wide, five areolae deep in widest part (six opposite apex of discoidal area);

#### Tingidae taxonomy

discoidal area reaching to middle of elytron, widened posteriorly, obliquely truncate at apex, there six areolae deep, acutely angulate at base; sutural areas overlapping each other at rest. Hind pair of wings nearly as long as elytra, pale fuscous.

*Holotype*, macropterous female, (fig. 1), Monson Valley, Tingo Maria, Peru, 29.II.1954, E. I. Schlinger and E. S. Ross, in Calif. Acad. Sciences, San Francisco.

This shiny black species can be separated at once from all other members of the genus by having the paranota distinctly angulate opposite the humeral angles. As in other members of the genus, the clavus is narrow and concealed beneath the backward projection of the pronotum when elytra are in resting position.

#### Haedus oios, NEW SPECIES

## FIGURE 2

Small, oblong, widest across apices of elytra, tapering anteriorly with a large hollowed sinus behind the middle of outer margin of each elytron; testaceous with head, pronotal disc and the discoidal, subcostal, and sutural areas of elytra brownish, also with a wide transverse band across apices of elytra dark fuscous; body beneath pale brown, shiny. Antenna pale testaceous with fourth segment slightly brownish. Legs pale testaceous with tip of tarsi blackish. Rostrum testaceous with tip blackish. Buccal and sternal laminae of rostral sulcus testaceous. Antenniferous tubercles and cephalic spines pale testaceous. Length 2.65 mm., width (across middle and apices of elytra) 0.82 mm., and 0.95 mm., respectively.

Head short, armed with five very long, subporrect spines; bucculae wide, mostly four areolae deep, closed in front. Labium extending to middle of mesosternum; sternal laminae of sulcus uniseriate, composed of one row of areolae, channel narrow and open at base. Antenna very slender, sparsely clothed with short setal hairs, with longer hairs on fourth segment; measurements: segment I, 0.10 mm.; II, 0.08 mm.; III, 1.20 mm.; IV, 0.32 mm. Antenniferous tubercles very long, transversely compressed, feebly curved inwardly, extending slightly beyond apices of second sternal segments. Orifice and ostiolar channel not visible on metapleuron.

Pronotum with sides narrowed anteriorly, moderately convex, reticuately punctate, tricarinate; median carina much higher than lateral pair, raised anteriorly, biseriate behind hood, uniseriate with larger rectangular areolae behind middle of pronotal disc, there with areolae

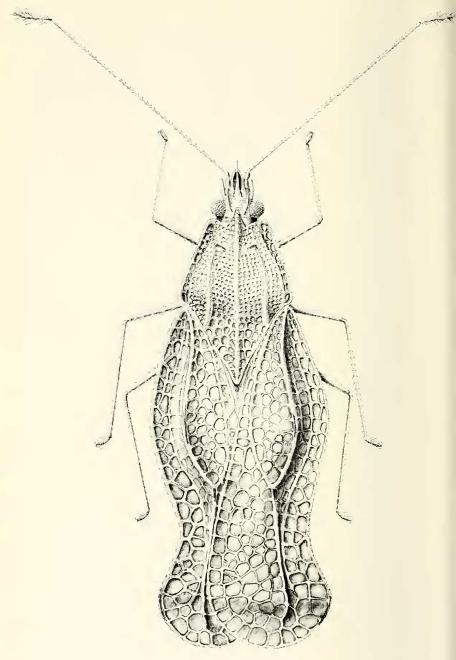


Figure 2. Haedus oios, n. sp.

#### Tingidae taxonomy

shorter than high; lateral carinae low, indistinctly areolate, nearly parallel; hood small, tectiform, angulately produced in front; paranotum narrow, long, slightly reflexed, mostly uniseriate, wider and biseriate opposite calli and collar. Legs very slender, indistinctly pubescent.

Elytra with outer marginal veins (also that of paranota) minutely serrate, apices partly overlapping in resting position; costal area fairly wide, mostly biseriate; discoidal area mostly biseriate, nearly vertical, extending a little beyond middle of elytron, widest behind middle, there four areolae deep, with boundary vein separating it from subcostal area obtusely angulately raised, highest behind middle, there and at apex with black spots; sutural area with areolae subequal in size to those in discoidal area; hypocostal laminae uniseriate, the areolae small and rounded. Abdomen, as seen from beneath, rather densely clothed with short, pale hairs along the upper margins of each side. Male parameres strongly curved inwardly.

*Holotype*, macropterous male, Salisbury, Southern Rhodesia, collected by C. M. Smithers, in Drake Collection (USNM).

This species can be separated from other members of the genus by the strongly constricted elytron behind the middle and the form of body and color markings as shown in the illustration of the type.

# Dictyonota maroccana Ribaut

Dictyonota maroccana Ribaut 1939, Bull. Soc. Sci. Nat. Maroc, vol. 19, p. 186.

An examination of the type (lectotype) of *D. maroccana* Ribaut, brachypterous female, Djebel M'Goun Canyon Tessaut, Morocco, 1.IX.1915, shows that it belongs to the subgenus *Alcletha* Kirkaldy, and that it is a synonym of *aridula* Jakovlev. *Maroccana* differs from the latter in having the first antennal segment slightly longer and the antenniferous tubercle more narrowed anteriorly and pointed at the apex. The other structural characters are similar to each other.

# Dictyonota tricornis (Schrank)

Acanthia tricornis Schrank 1801, Fauna Boica, p. 67.

Dictyonota dictyesthes Garbiglietti 1869, Bull. Soc. Entom. Italiana, vol. 1, p. 274. – Drake and Ruhoff 1960, Proc. U.S. Natl. Mus., vol.

112, p. 7. (New Synonymy)

Dictyonota tricornis: Horváth 1906, Ann. Mus. Nat. Hungarici, vol. 4. p. 41.

142 Bulletin So. Calif. Academy Sciences / Vol. 61, Pt. 3, 1962

Dictyonota ifranensis Vidal 1951, Bull. Soc. Sci. Nat. Maroc, vol. 31, p. 63. (New Synonymy)

Dictyonota tricornis americana Parshley 1916, Psyche, vol. 23, p. 164. (New Synonymy)

An examination of the holotype of *Dictyonota ifranensis* Vidal, macropterous female, Ifrane, Morocco, VII.1938, J. P. Vidal, shows that it is inseparable from and a synonym of *D. tricornis* (Schrank) (*det*. Horváth). An examination of many specimens of *tricornis* from Europe shows that it is very variable in size and in the areolation of the paranota and elytra, especially costal area. *D. tricornis americana* Parshley is also suppressed here as a synonym of *tricornis*, as well as *dictyesthes* Garbiglietti.